The Rolle Canal

& Northern Devon Waterways Society

SOCIETY NEWS & VIEWS

SPRING ISSUE

May 2016

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Front cover: Purple Orchids growing next to the roving bridge on Lord Rolle's Canal. A. Wills

CHAIRMAN'S REPORT TO AGM 2016

Last year saw the conclusion of the Life's Journey Project, instigated by the North Devon Biosphere. This was a major project which highlighted the existence of Lord Rolle's Canal and its effects on the local environment. It has certainly had significant repercussions and the interpretation boards erected as a result, continue to provide a great deal of interest and topic for conversation amongst visitors and locals alike.

Since our last AGM I wondered what might happen to continue promoting our cause and field of interest with such impact. However, we have since had major events but not all happy ones.

Sadly, in October 2015, we lost one of our founder members and strongest advocate of our society when Barry Hughes died. He worked tirelessly to raise the profile of the Rolle Canal and his book, *'The Rolle Canal and the North Devon Limestone Trade',* has become something of a 'bible' to us. His support, knowledge and practical skills are sorely missed.

Another but far less personal tragedy hit us when a significant section of the towpath collapsed on the permissive footpath section behind Beam House. A diversion to avoid the dangerous fall has been constructed, thanks to 'Tony Barnes and a small group of volunteers. They have worked very hard to enable the path to be re-opened to the public as soon as is safe to do so.

Work to repair the actual slip is a major undertaking and will take a lot of planning and probably quite a lot of money.so this will not happen quickly. Our next step is to ask our consultant civil engineer from the Inland Waterways Association, with which we are connected, to provide us with a professional assessment of the collapse and a strategy to make good.

In November 2015, the RC&NDWS, working in conjunction with R.H.S. Rosemoor, began clearing invasive vegetation and debris from the head of the canal alongside the lime kilns at the bottom of Rosemoor Gardens. This work is being organised by Ian Harrison who not only has put a lot of his own physical energy into the job but has managed to gather a new group of volunteers to assist. This is a very exciting project which, thanks to this group, is already showing tremendous progress.

The administration of R.H.S. Rosemoor has always been very supportive of our society for which we are very grateful. It is very much 'on board' with us regarding the development of the canal basin on its land, to the extent of already hiring small plant and providing us with skilled operators to excavate and remove spoils from the site at no expense to us.

This is an even longer long-term project than the collapsed towpath. In order to bring about any restoration which would be wonderful, a huge amount of planning, a vast amount of manual and mechanical labour as well as a large quantity of money will be required but given the kind of dedication shown by the RC&NDWS volunteers and the support of organisations such as R.H.S. Rosemoor, IWA, and various grant-funding organisations nothing is impossible.

Work at Sea Lock has somewhat slowed down over the past year for a number of minor reasons but never-the-less continues to progress in a quiet sort of way. A visit from Denise Lewis and a team from the BBC in order to make a mini- documentary for the new 'Secret Britain' has unfortunately come to nothing since this has been cut from the programme. The reason given was lack of air-time required to broadcast what the BBC wanted although I suspect that the quality of recording was not good enough since it was done very late in the day when the light level was very low. Whatever the reason, it is a shame since

that would have been a fine bit of publicity for the canal and our society.

In order to aid our volunteers and the restoration work our society undertakes, we have become the proud owners of a small, second-hand, enclosed and lockable trailer. This is a very recent acquisition and, once a few very minor repairs have been completed and the RC&NDWS logo is emblazoned on its sides, it can easily be towed to restoration sites, containing all the necessary tools, or to events, carrying our display boards and other bits and pieces. The RC&NDWS *moves* on!

So, having thought that this year may have turned out to be rather non-eventual, nothing can be further from the truth! Our society continues to thrive and grow, maintaining a high level of respect and support.

Well done to all our members and especially our volunteers.

Adrian Wills
April 2016

The recently acquired trailer awaiting some minor repairs and the application of the RC&NDWS livery!

Following the AGM, those attending took advantage of the opportunity to see the extent of the work that Ian Harrison and his group of volunteers have been undertaking on the head of the canal adjacent to the lime kiln complex at the foot of R.H.S. Rosemoor Gardens.

It was hoped that one of Rosemoor's staff would be available to give a broad view on what the long term plans for this area are but unfortunately no one was available. However, Ian provided an on-site explanation on what the volunteers had achieved and what the next stage would be which was very well received.

The RC&NDWS is very grateful to the administrators of R.H.S. Rosemoor for hosting the 2016 AGM and for their continued support of the society's aims and efforts.

TREASURER'S REPORT 2015 / 2016

ACCOUNT 1	Balance as at 2nd April 2015		**£2988.48**
Income	Subscriptions	£1205.00	
	Donations	345.00	
	Walks/Talks	390.70	
	Grants	600.00 (Note 1)	
	Total	**2540.70**	
Expenditure Printing		£307.14	
	IWA membership	60.00	
	Insurance	273,75	
	Postage	270.00	
	Materials	895.68 (Note 2)	
	Hire	98.00	
	Total	**2000.00**	
	Balance at 1st April 2016		**£1670.61**
	Petty Cash as at 2nd April 2015		22.44
Income	James Green book	5.00	
Expenses	stamps	5.40	
	Stationery	1.49	
	Total	**6.89**	
	Petty cash as at 1st April 2016		20.55

Note 1 £600.from Bideford Bridge Trust

Note 2 building stone

ACCOUNT 2 (Project account)

Balance as at 2nd April 2015	£1532.35
Interest	0.69
Transfer from current account	2000.00
Balance as at 1st April 2016	3533.04

Stock at cost

1. Books

James Green, Canal engineer	1 copy	£3.24 ea
Westcountrymen	6 copies	£2.44 ea

2. Sweat shirts in Chelsea blue

With society logo	2 off	£14.40 ea

Assets (At written down value)

Tools	£25
Display boards	£160

Treasurer (A. Barnes) 12th April 2015

The accounts show Subscription income has increased this year, the reason for this is timing and a significant increase in our membership.

We are grateful to the Bideford Bridge Trust for their continued support, which has helped defray the increased expenditure for the quarterly newsletter, which is highly valued by the membership.

A. Barnes Treasurer

MAKING SENSE OF MUD AND STONE

Following the AGM I contacted Roy Sutton, consultant civil engineer to Inland Waterways Association, re. the major collapse of the towpath on the permissive path section of the canal to ask him if he would be prepared to come and assess the problem and advise our society on how we should go about repairing it. He reminded me that he had already written a report on this section having previously visited when we were first planning to open it as a permissive footpath. He said that what he stated in that report would apply exactly the same as for the present situation.

I resurrected the report, which I must confess I had forgotten that I had, read it carefully and was fascinated by the observations, detail and calculations which Roy had made. I think (but then many people consider me somewhat odd) that Roy's report make for very interesting reading, especially for those who are intrigued by civil engineering techniques, the construction methods of our Victorian forebears and the problems of repairing historic structures.

The following is the entire report as submitted by Roy and for which our society is very grateful. I dread to think about the cost we would have to meet to employ an engineer of Roy's standing and expertise to provide us such a comprehensive report, if he were not prepared to offer his services to societies such as ours for just his travelling expenses but I wouldn't be surprised to discover that it would be many hundreds of pounds.

Thank you, Roy!

Chair.

Rolle Canal - Furzebeam Permissive Path -
Retaining wall failures
Roy Sutton BA, MSc, CEng, MICE
8th September 2012

The path was inspected on 14th August 2012 in company of Adrian Wills and Chris Jewell. Much vegetation has been removed and a short bridge and some 'log stepping-stones' constructed since the inspection prior to my report of October 2009.

In general the dry-stone retaining walls remain in excellent condition for their age. However three significant localised collapses remain unrepaired and one new collapse has occurred since October 2009. The overall length of the retaining walls is 92m and their height is between 4.9m and 1m. Their batters are between 1:10 and 1:6.

1) Causes of retaining wall failure

1.1) The line of force in a gravity retaining wall is close to the front face. So the stones at the face are the most heavily loaded in the structure. The wall is constructed of shale excavated from the hillside, laid dry and without coursing. Where individual stones fail, as a result of the effects noted below, there may not be an effect. If there is an effect from a single stone, or if several stones in an area fail, then the wall 'wriggles' to redistribute the loading on the face. This can go on for some time and will maintain the wall in sound state even if many individual instances of damage are occurring. However, this damage limitation is only possible because the dry-stone is flexible enough to allow redistribution.

1.2) Eventually, after many individual failures, redistribution causes an area to be so heavily loaded that a failure mechanism occurs. Normally the mechanism involves removal of support from beneath stones, resulting in their falling out to create a

failure gully with a scree below. However, in one case the normal failure mode has ravelled upwards to a point where the stonework on each side has formed a ‘bridge’: an arch of loose material supporting the weight of three further metres of material above it.

1.3) Examples of individual damaging effects are shown below:-

1.3.1)

Poor material

Occasional lumps pf mudstone are mixed in with the generally competent shale blocks.

1.3.2) Roots

The ivy roots shown in the following two pictures are destructive as they get into cracks in the stones and force them open, destroying the stones.

1.3.2) Roots continued

Even more destructive are the underground roots of saplings.

1.3.3)

Poor Construction / Repair

Occasional buttresses appear to have been added after most of the construction.

They may have been repairs to earlier failures.

The buttress quoins in the picture are poorly bonded to the body of the wall. The buttresses also use a messy combination of very small and very large stones. As well as being untidy this inhibits redistribution of load

1.3.4) Shattering under load

This picture shows the distribution of load causing shale blocks to shatter.

The next stage after this is a failure mechanism.

1.3.5) Frost-heave and vegetation

This picture shows a failure caused by a combination of two distinct effects.

Frost-heave occurs when saturated soil freezes and expands, so pushing the top of the wall slightly outwards with inexorable force. The wall movement leaves the soil loose. It consolidates. Then it freezes again and the wall is moved incrementally further. Over many years the top of the wall is destabilised.

Root balls also destabilize the top of the wall. Frostheave assists their growth. But even in the short term they can do enormous damage to the top of the wall.

2) Potential methods of repair

2.1) Concrete

Concrete is an ‘all-or-nothing’ solution. If patches of concrete are supported on or by existing dry-stone walling then the support for the patches will change with time as described above. The concrete patches are not tolerant of movement around them. They do not ‘wiggle’ and redistribution of load would be limited. A failure mechanism will evolve far faster than would be the case for dry-stone alone.

Concrete can only successfully be used if it comprises the whole volume of the rebuilt structure and if it is founded on material that is extremely rigid. Construction of a concrete gravity wall would require the entire depth of existing wall to be removed. It would be vastly expensive and destroy the historic fabric we seek to preserve.

2.2) Mortared stone

Mortared stone reproduces precisely the same problems as patchwork concrete. In the context of a dry-stone wall it is too rigid to allow deformation compatible with the dry-stone. It would not successfully redistribute load following movement.

[NB A mortar wall repaired with mortared stone would be entirely appropriate since the scale of the movement would be smaller and compatible redistribution would occur.]

2.3) Gabions

Gabions can last two hundred years. They are less flexible than dry-stone, but do allow redistribution to a compatible extent. However, they do not tie-in to the existing material of the wall. So they must be designed as independent retaining walls. They thus require a large foundation requiring removal of the entire depth of the existing wall and potentially the breaking out of large amounts of rock to provide a flat or stepped foundation.

2.4) Dry-stone

Repair in dry-stone ensures compatible redistribution of load with movement. It also allows the reconstructed face to be efficiently tied-back to the body of the wall, minimising the amount of existing wall to be removed and the volume of the reconstruction. Of all the options it requires the least amount of new material to be sourced and transported to the site. It is the optimum method of repair in this case.

3) Dry-stone repair

3.1) Construction team

Dry-stone walling is highly skilled. These walls are far larger than normal dry-stone walls (and even buildings in dry stone are very normally single-storey). So the team must be led by a person with great past experience in dry-stone walling. Ideally this appointment may come through recommendation (eg by Bideford bridge Trust or CRT in South Wales where there are similar dry-stone walls). Examination of previous work, if let by commercial tender, is essential.

Work will proceed most efficiently if the dry-stone waller is supported by a team of unskilled but fit people. They would remove the scree, dig out unsupported material, transport new material and pass down stones to 'feed' the dry-stone waller.

Their numbers could be between two and twelve.

3.2) Activities

a) On the intact wall on each side of the failed section of wall scaffold boards should be laid (oriented vertically) and their tops tied back and their bottoms anchored. Then packing should be placed between the stones of the intact wall and the boards such that the stones are held in place as the work proceeds

b) The scree should be manually removed by shovelling down the hillside, with usable stones passed up to the level of the towpath and stockpiled.

c) Scaffolding should be constructed from the base of the wall. It should extend 2m each side of the likely extent of the recess to be created by removal of loose stone. Its top, at each side, should run over the towpath and be fully anchored back to prevent any possibility of overturning. It should be used to further restrain the vertical boards at each side. Though members of the team may transport and assist with the erection of the scaffold it must be certified as usable by a competent scaffolder.

d) The loose stone in the failed area should be removed, with re-usable material passed up and stockpiled. The outcome should be a recess with a flat bottom platform around 0.5m deep and with sides and back battered at about 1:3 with small stones taken out, leaving larger stones of the original wall with sufficient projections and steps that new stones can be placed to fully engage with stones of the original wall to form one structure. This process will reveal the profile of the rear of the original wall, along with the puddle and possibly the dry-stone towpath retaining wall. Removed puddle should not be stockpiled since there is no intention to re-water the canal (and even if there were it would now be lined in bentonite sheet or similar).

e) The dry-stone waller should commence rebuilding, starting at the bottom. The team should pass down to the working platform a large number of stones to give the waller a wide choice such that stones providing excellent interlock with the original stonework are used. Reconstruction need not extend behind the line of the original wall profile (as there is no indication of overturning or sliding instability).

f) The rear face of the wall profile should be lined with terram (two layers) and then the void behind the wall should be filled with previously excavated material, watering it if necessary and compacting it using a wacker-plate.

4) Extents of failures, timescales and costs

4.1) Major collapses at Furzebeam are identified using their distance (chainage) from the flank wall of the roving bridge:- Ch 66: 2m wide, 3m high complete collapse of face.

Ch 149: Failure at the base of a 4.9m high wall that has ravelled upwards and then formed a 'bridge' mechanism. This is unstable and potentially dangerous. It should NOT be considered as a candidate for repair using the methods described above. If it is tackled it will need specialist consideration.

Ch 155: 4m wide, 2m high failure at the top of a 4m high wall.

Ch 323: 3m wide, 2.5m high complete collapse of face.

4.2) Likely reconstruction volumes and scaffold face areas are:-

Ch 66: $(2.0x0.5x3.0) + (4.0x1.5 – 2.0x0.5)\ x3.0 / 3 = 8m^3$

$(4.0 + 4.0)\ x\ 3.0 = 24m^2$

Ch155: $(4.0x0.5x2.0) + (5.33x1.17 – 4.0x0.5)\ x2.0 / 3 = 6.8m^3$

$(5.33 + 4.0)\ x\ 4 = 37m^2$

Ch 323:$(3.0x0.5x2.5) + (4.66x1.33 – 3.0x0.5)\ x\ 2.5 / 3 =$ $7.66m^3$

$(4.66 + 4.0)\ x\ 2.5 = 22m^2$

4.3) Likely timescale of activities for any one of the above:-

Site establishment 0.5day

Cl 3.2 a) 0.5 day

Cl 3.2 b) 2 days

Cl 3.2 c) 1 day

Cl 3.2 d) 2 days

Cl 3.2 e) 3 days

Cl 3.2 f) 1 days

Removal of scaffold, tidy, dismantle site 1 day

Total 11 days. That is equivalent to two weeks canal camp.

4.4) Ball park costs for any one of the above:-

Canal camp background costs - £1000

Employment of skilled dry-stone waller for two weeks plus allow several days beforehand to plan and organise the work. - £2000

Hire of scaffold and attendance of a certificated scaffolder for a day - £1000

Purchase of additional stone and other materials - £500

Chairman's Comment:

I have recently visited the site of the collapse with Al' Mitchell who was responsible for repairing a similar but smaller collapse on the same section of wall quite some time ago. I was seeking his opinion as to the logistics of repairing this new fall. We both agreed that it would be a very long and tedious operation partly because of the extent of the damage but more significantly, due to the difficulty in clearing the base of the fall in order to sort and stock-pile fallen stone and earth, and to provide a free and safe working space.

The job is not insurmountable just long and difficult. However, one way or another we will eventually make good!

FURZEBEAM TOWPATH DIVERSION

Report by Anthony Barnes

Earlier this year, after intense rain, a section of the embankment collapsed, taking most of the towpath with it. The path had only been open for two years so this was a major disaster. Local people particularly, use the path regularly, and even though warning signs were put up at each end, it continued to be used. It was clear that an alternative route was needed rapidly.

Alternatives were considered, such as ladders down to the riverside, but this would have been a lengthy task with a high cost. It was Chris Hassall who suggested that we should investigate the possibility of crossing over the canal bed and using the other side.

A survey showed that this was feasible and volunteers gathered rapidly to start work.

The long and rough access to the site meant all materials and tools had to be carried manually to the area. The list was long and heavy!

Two walkways were required at ground level, keyed into the banks of the canal, without destroying what was left of the stonework, and a reasonably level path hewn out of solid rock in some cases. Then quarry scalpings were barrowed to the site to provide a fairly level surface. During the work the probable cause of the collapse became apparent as a spring leached out of a wide seam above the new path. Two drains were added to try to reduce the impact of this, with a modicum of success, although an area of damp surface remains and needs to be negotiated carefully if walking in sandals!

The final result is easily negotiated but reopening the towpath depends upon DCC passing the diversion as fit for use. Not expected to be a problem.

Above photographs showing 'Tony Barnes and Adrian Pope completing the diversionary path, taken by Michael Elliott.

We are grateful to Martin Caddy of DCC for the funds needed for the project.

At the very least the local people will continue to use it and will be safer than trying to inch across the broken towpath.

It was a pleasure to work with the team who undertook the work, and perhaps even more, the locals who stopped and applauded

our effort, including the owner of the shooting rights in the woods above the canal, who walks his dogs there every day.

We must wait now until the rebuilding task is started, hopefully within the next 3 years, if we can get a Waterway Recovery Group of volunteers with an experienced dry-stone wall builder.. The diversion should be good for about 5 years, with a bit of routine maintenance.

The chairman took the photograph above showing the completed diversion Plies of brash have been placed on either side of the collapsed section to deter people from walking along the dangerous edge,

All that is required now is official approval from Martin Caddy in order to re-open the permissive path for public use.

Well done to 'Tony and his gang!

THERE'S A HOLE IN MY BUCKET!

In the last edition of the RC& NDWS newsletter I mentioned that I had been given an assortment of articles and drawings which once belonged to Barry Hughes.

Back in January 2004, following some excavation and silt removal from the wharf basin at Sea Lock by a tracked 360 excavator I discovered an odd bit of metal sticking out of the silt close into the side and at the base of the wall. I carefully cleared around it with a spade and discovered that it was part of the lifting handle of a quite large wooden bucket I also found alongside it the remains of what appeared to be a very long and narrow wooden trough. I asked Barry to come and see these artefacts and give me his opinion as to what they were used for.

I took a series of pictures of the objects with my digital camera and stored them on my computer. Unfortunately due to some poor, misunderstood wretch who had nothing better to do than design computer viruses to spread through the Internet and destroy the contents of computer systems, I lost an enormous quantity of stored images and documents of my early working at Sea Lock.

In one of the Barry's folders was a print of one of my lost images and Barry's scale drawings of the wooden objects. The coloured picture appears in Barry's book, '*Rolle Canal & the North Devon Limestone Trade',* so one or two of you may have seen it before. The included image is a scan of an old ink-jet print so much quality has been lost but it's far better than nothing. In this picture you will see Barry measuring the bucket and alongside it the wooden trough. (Note the ice along the edge of the wooden trough. It was a lovely warm day!))

The trough we concluded was actually a steam box but the top was missing. Long lengths of timber would be put inside the box

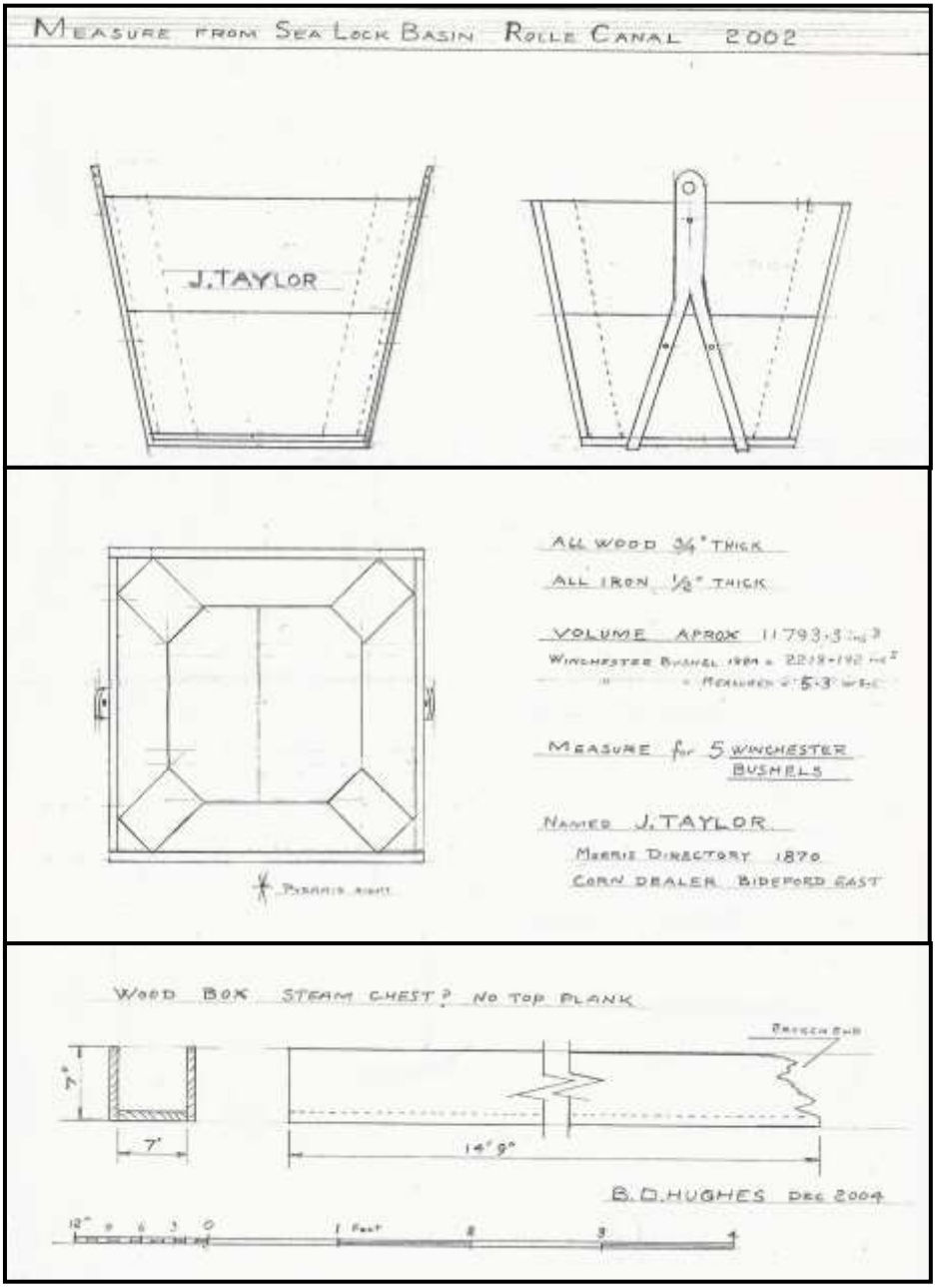
and steam passed through. Following a period of time in the steam box, (dependent on the dimensions and type of wood), the inserted timber would become soft and pliable enabling it to be bent. This technique is extensively used in the construction of clinker built boats. Sadly the steam box was very rotten and disintegrated when Barry and I tried to remove it from the mud.

Barry Hughes measuring the wooden bucket. To its right is the remains of a steam box. January 2004

The bucket was also suffering from the ravages of time, and having been bashed by the excavator. However, with a struggle we managed to extricate it from the silt and after Barry had measured it very carefully, it was submerged in an old tank full of fresh water to preserve it for possible future restoration.

Sometime later Barry produced a scale drawing of both steam

box and the wooden bucket which had the name ‘J. Taylor’ branded into the wood on one face but still easily readable.



Not content with simply measuring the finds and then drawing them to scale, Barry was curious to know about ‘J. Taylor’ and also the capacity of the box, which was obviously designed to be lifted, presumably from boats, by some sort of crane or hoist.

Having ascertained from the Morris Directory of 1870 that there was J. Taylor, Corn Dealer of East-the-Water, Bideford’, he then calculated the capacity of the bucket (5 Winchester bushels) according to a table of conversions in the Mac Encyclopaedia:-

Weights and Measures, etc.

One cubic foot of Clay (dry)	75lbs
____"____"____ Clay (loose lumps)	63lbs
____"____"____ Clay (potters wet)	116lbs
____"____"____Coal (Welsh Anthracite)	58.28lbs
	39 cu ft per ton
____"____"____Limestone (solid)	168lbs
____"____"____Limestone (Broken)	162lbs
____"____"____Burnt lime (small lumps)	5.3lbs
____"____"____Burnt lime (lump or dust)	7.5lbs
____"____"____Burnt lime (average)	6.5lbs
____"____"____Burnt lime (average)	6.5lbs
____"____"____Sand (dry)	111lbs
____"____"____Sand (wet)	136lbs
1 Winchester bushel of clay (loose lumps)	80.8lbs
____"____"____"____ Clay (Potters)	152.7lbs
____"____"____"____Coal (Welsh anthracite)	74.8lbs
	30 Winchester Bushels per ton

____"____"____"____ Limestone 215.6lbs

10 Winchester Bushels per ton

____"____"____"____Burnt lime (Small lumps) 68lbs

33 Winchester Bushels per ton

____"____"____"____ Burnt lime (Lumps or dust) 96lbs

23 Winchester Bushels per ton

____"____"____"____ Burnt lime (average) 83lbs

28 Winchester Bushels per ton

____"____"____"____ Wheat 60lbs

____"____"____"____ Barley 55lbs

____"____"____"____ Oats 40lbs

I ton = 20cwt (hundred weights) = 2240lbs (Pounds)

1 cubic foot = 1728 cu. inches

1 Winchester Bushel (1824) = 2218.192 cu. ins.= 1.2836 cu ft.

In the 1808 Volume 1 book entitled *'General View of the Agriculture of the County of Devon'* by Charles Vancouver, he recommends that agricultural land should be dressed with 80 bushels of burnt lime per acre which is the equivalent of approximately 2.3 tons per acre.

Thanks to Barry Hughes for the information above. He will continue to be a source for inspiration and knowledge for a long time to come

Adrain Wills.

OUT AND ABOUT ON THE ROLLE CANAL

The volunteers working at Rosemoor have continued to make great progress and in order to keep them happy in their work, the society has provided them with a few nice new tools.

I managed to make time to visit Ian Harrison and his gang on Wednesday 4th May at the head of the canal in RHS Rosemoor Gardens just in time to see Adrian Pope (pictured left) 'hoike' out a large tree root that he had been doing battle with for quite some time. I understand that Mike Elliott had also had similar success with another offending stump. It was a fine day and the volunteers were getting on well and seemed to be enjoying the good weather.

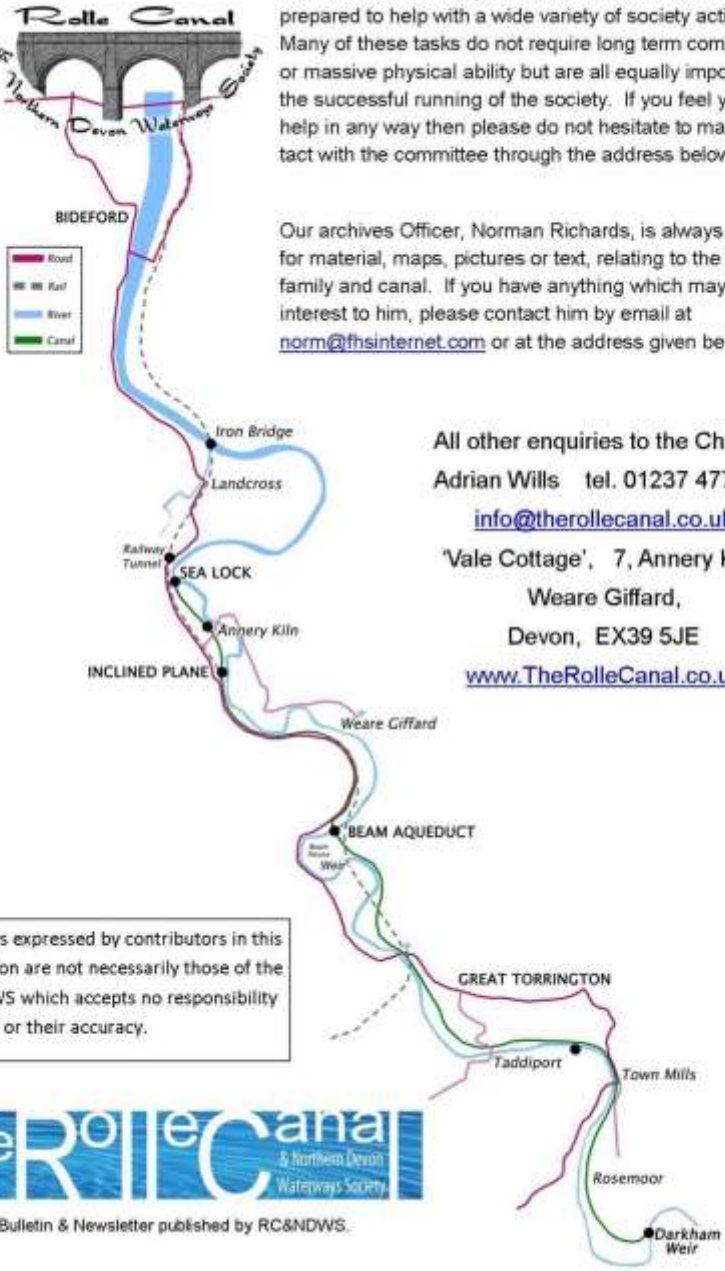
The next working party will be on Wednesday 11th May. Due to congestion in the site car park, Ian will pick up 3 workers as pre - arranged at the Woodland car-park at 09.25 am and drive them down to the site for 09.30 when he will meet up with the others. He would be delighted to be joined by any new volunteers.

The next guided walk, led by Chris Hassall, will be on Sunday June 12th, meeting at the Puffing Billy carpark (old Torrington Railway Station) for a 2.30pm start.. There will be opportunity to have a look at Staple Vale as well as the three very different river crossings at this point. It is strongly suggested that those wishing to take part in any RC&NDWS walks wear stout, supportive shoes or walking boots although the ground here is relatively level and firm.

The society asks for a donation of a minimum £2 per head which goes towards society costs.

The RC&NDWS always welcomes volunteers who are prepared to help with a wide variety of society activities. Many of these tasks do not require long term commitment or massive physical ability but are all equally important to the successful running of the society. If you feel you can help in any way then please do not hesitate to make contact with the committee through the address below:

Our archives Officer, Norman Richards, is always looking for material, maps, pictures or text, relating to the Rolle family and canal. If you have anything which may be of interest to him, please contact him by email at norm@fhsinternet.com or at the address given below:



All other enquiries to the Chair --

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Bulletin & Newsletter published by RC&NDWS.